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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PASIA, REDENTOR M

ART UNIT	PAPER NUMBER
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2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/667,869	Applicant(s) NASSAR, AYMAN ESAM	
	Examiner REDENTOR M. PASIA	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-11,13,14,16-18 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-11,13,14,16-18 and 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/24/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on April 4, 2008 has been entered. Claims 1-2, 9-10, 13, 16, 18 have been amended. Claims 8, 12, 15, 19-24 have been canceled. Claims 25-28 have been added. Claims 1-7, 9-11, 13-14, 16-18, 25-28 are still pending in this application, with claims 1, and 13 being independent.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 4, 2008 has been entered.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims

are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 7, 9 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 4 of co-pending Application No. 10/785233 (hereinafter 233) in view of Harrisville-Wolff (US 6950847 B2; hereinafter Harrisville-Wolff).

As to claim 1 of the instant application, claim 4 (which is inherent of the features claimed in claim 1 and 3) of 233 shows:

<u>INSTANT APPLICATION</u>	<u>CO-PENDING APPLICATION</u>
1. A physical packet services node within a telecommunications network, comprising:	3. The telecommunications system of Claim 1, further comprising: a unified and integrated switch
a first logical communications node operated by a first service provider as an independent packet services node of the first service provider (that can process multiple, concurrent service requests for customers of the first service provider)	4. said unified and integrated switch includes a first logical communications node associated with the first service provider and capable of being dynamically configured in a customized manner by the first service provider
a second logical communications node operated by a second service provider as an independent packet services node of the second service provider (that can process multiple, concurrent service requests for customers of the second service provider;) and	and a second logical communications node associated with the second service provider and capable of being dynamically configured in a customized manner by the second service provider.
common resources, respective portions of said common resources being dedicated	3. common resources, a first portion of the common resources being dedicated to the

to said first and second logical communications nodes, each of said respective portions being dynamically configured in respective customized manners by said first and second service providers.	first service provider and being capable of being configured by the first service provider, a second portion of the common resources being dedicated to the second service provider and being capable of being configured by the second service provider.
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However, 233 does not explicitly show that the service providers can process multiple, concurrent service requests for customers.

Harrisville-Wolff shows service providers can process multiple, concurrent service requests for customers (Figure 1: col. 6, lines 15-35; the client system 104, 116 via the virtual service mechanism 108, 120 forwards service requests to the service manager 160.). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of 233 to include the features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

As to claim 7, modified 233 shows software resources (Harrisville-Wolff: col. 7, lines 45-56; the stored service proxies in the memory 184 are executable code that define the interfaces, initial attributes, and operations of the service and which when

transferred by the service deployment mechanism 176 to a client system 104, 116 allow the service to be provided through interactions between the service providers 136, 148 and the client systems 104, 116).

As to claim 9, modified 233 shows a firewall providing private and secure separation between said first logical communications node and said second logical communications node (Harrisville-Wolff: Figure 1, Firewall 128).

As to claim 13 of the instant application, claim 4 (which is inherent of the features claimed in claim 1 and 3) of 233 shows:

<u>INSTANT APPLICATION</u>	<u>CO-PENDING APPLICATION</u>
13. (Currently Amended) A system for sharing and optimizing resources between service providers within a telecommunications network, comprising:	1. (Currently Amended) A telecommunications system for provisioning an inter-provider internet protocol (IP) service, comprising: a first network managed by a first service provider, said first network having a plurality of resources; a second network managed by a second service provider,
a first and second service providers, each capable of providing telecommunications services (to respective end users); and	a first network managed by a first service provider, said first network having a plurality of resources; a second network managed by a second

	<p>service provider, said second network having a plurality of resources, said second network being operable to receive a request for the inter-provider IP service; means for automatically provisioning the inter-provider IP service <u>between the first network and the second network</u> using the first resources and the second resources.</p>
<p>a unified and integrated switch within the telecommunications network and having a respective physical interface to each of said first service provider and said second service provider,</p>	<p>3. (Original) The telecommunications system of Claim 1, further comprising: a unified and integrated switch connected to said first network and said second network, said unified and integrated switch having common resources, a first portion of the common resources being dedicated to the first service provider and being capable of being configured by the first service provider, a second portion of the common resources being dedicated to the second service provider and being capable of being configured by the second service provider.</p>

said unified and integrated switch including a first logical communications node operated by said first service provider as an independent packet services node of said first service provider (that can process multiple, concurrent service requests for said end users of said first service provider) and	4. (Original) The telecommunications system of Claim 3, wherein said unified and integrated switch includes a first logical communications node associated with the first service provider and capable of being dynamically configured in a customized manner by the first service provider
a second logical communications node operated by said second service provider as an independent packet services node of said second service provider (that can process multiple, concurrent service requests for said end users of said second service provider),	a second logical communications node associated with the second service provider and capable of being dynamically configured in a customized manner by the second service provider.
said first logical communications node having a first portion of common resources within said unified and integrated switch dedicated thereto, the first portion of the common resources being configured by said first service provider,	a first portion of the common resources being dedicated to the first service provider and being capable of being configured by the first service provider
said second logical communications node	a second portion of the common resources

having a second portion of the common resources dedicated thereto that is configured by said second service provider.	being dedicated to the second service provider and being capable of being configured by the second service provider.
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However, 233 does not specifically show end-users and that the service providers can process multiple, concurrent service requests for customers.

Harrisville-Wolff shows end-users (Figure 1, clients) and service providers can process multiple, concurrent service requests for customers (Figure 1: col. 6, lines 15-35; the client system 104, 116 via the virtual service mechanism 108, 120 forwards service requests to the service manager 160.). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of 233 to include the features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

This is a provisional obviousness-type double patenting rejection.

5. Claims 2-3, 10-11, 14, 16-17, 25-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 4 of copending Application No. 10/785233 (hereinafter 233) in view of Harrisville-

Wolff (US 6950847 B2; hereinafter Harrisville-Wolff) in further view of Quiles et al. (US 7065072 B1; hereinafter Quiles).

As to claim 2, modified 233 shows all of the elements except that the portion of said common resources allocated to said first logical communications node is dynamically and customarily reconfigured by said first service provider.

Quiles shows that the portion of said common resources (Figure 2, line card 87; col. 5, lines 1-3, each line cards 87 comprises one or more DSL modems, also referred to as ports) allocated to said first logical communications node is dynamically and customarily reconfigured by said first service provider (col. 5, lines 1-14; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card. In this regard, control refers to being able to turn on and off service as well as to tune the particular type of service that a particular customer is granted, such as silver, platinum or gold service levels, depending on the amount of bandwidth provided to the customer. Division of control is illustrated on a line card-by-line card basis; however, division of control could also occur on a port-by-port basis, giving control of various ports on a line card to different service providers; col. 5, lines 43-51). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

As to claim 3, modified 233 shows all of the elements except said common resources include switch fabric.

Quiles shows said common resources include switch fabric (col. 4, lines 46-47; The network interface card also contains the IP/ATM switch fabric). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

As to claim 10, modified 233 shows all of the elements except shows said second logical communications node is a master communications node and the second service provider is an operator of the physical packet services node, the master communications node being configured to manage and allocate said common resources to said first logical communications node.

Quiles shows said second logical communications node is a master communications node (Figure 2, line cards associated with Incumbent Local Exchange Carrier (ILEC) Verizon; Figure 3C) and the second service provider is an operator of the physical packet services node, the master communications node being configured to manage and allocate said common resources to said first logical communications node (Figure 3C; col. 6, lines 50-67; The system of FIG. 3C shows a plurality of CLEC clients 130, 132 associated with an ILEC DSL manager 124 are provided. CLEC clients 130 and 132 are hosted by an ILEC DSL manager server 124 on an ILEC network operation center 122 and provide a user interface to the CLECs for configuration of line cards 87 or ports 88 that are associated with the respective CLEC. Because CLEC clients 130, 132 communicate directly with ILEC DSL manager server 124 permissions are set that grant access of CLEC clients 130, 132 to only particular line cards 87 or 88 over which

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the CLEC has control. The configuration data received by ILEC DSL manager server 124 is communicated to element manager server 128 and implemented over line 65.). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

As to claim 11, modified 233 shows all of the elements except that the physical packet services node is an internet protocol (IP)-based router or switch.

Quiles shows that the physical packet services node is an internet protocol (IP)-based router or switch (Figure 1 and 2, DSLAM 44; Examiner notes that a DSLAM is a packet multiplexer that serves to multiplex data packets from multiple customers in order to transmit them over one or more high-speed circuits; also in an integrated voice/data application, the voice packets are forwarded to a PSTN or an IP network;). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

As to claims 14 and 16, these claims are rejected using the same reasoning set forth in the rejections of claims 2 and 10, respectively.

As to claim 17, modified 233 shows all of the elements except that the master communications node is connected to additional master communications nodes on respective unified and integrated switches on the telecommunications network.

Quiles shows that the master communications node is connected to additional master communications nodes on respective unified and integrated switches on the telecommunications network (Figure 2, shows line cards 78 to 84 connected with each other, and each line card is associated with ILEC Verizon; Figure 3C; col. 6, lines 50-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

As to claim 25, modified 233 shows all of the elements except at least one of the first and second service providers modifies hardware within said common resources to customize said respective first or second logical communications node.

Quiles shows that at least one of the first and second service providers modifies hardware within said common resources to customize said respective first or second logical communications node (col. 5, lines 43-51; DSL managers 96, 98 and 100 provide a user interface to an appropriate service providers such that the service provider may appropriately set a particular port 88 on a line card 87 to desired settings.). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

As to claim 26, modified 233 shows that each of the first and second service providers customizes said respective first and second logical communications node

(refer to claim 1 rejection). However, modified 233 does not shoe that the nodes operate as an IP router.

Quiles shows the nodes operate as an IP router (Figure 1 and 2, DSLAM 44; Examiner notes that a DSLAM is a packet multiplexer that serves to multiplex data packets from multiple customers in order to transmit them over one or more high-speed circuits; also in an integrated voice/data application, the voice packets are forwarded to a PSTN or an IP network;). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified 233 to include the features of Quiles as shown above, in order to be more economical by sharing respective parts of the DSLAM (col. 2, lines 11-26).

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 7, 9-11, 13, 14, 16-17, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff).

As to claim 1, Quiles show a physical packet services node (Figure 2, DSLAM 44) within a telecommunications network (Figure 1), comprising:

a first logical communications node (Figure 2, line cards 70, 72) operated by a first service provider as an independent packet services node of the first service provider (Figure 2; col. 4, lines 56-67; line cards 70 and 72, both associated with a CLEC, such as Southwestern Bell; col. 5, lines 3-6; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card.) that can process multiple, concurrent customers of the first service provider (Figure 1, shows multiple DSLAM 44 coupled to a splitter which gives parallel/concurrent access to multiple homes; col. 2, lines 61-66; Telecommunication system 10 includes a central office 12 providing telecommunications services between a plurality of homes or businesses (or other locations) 14 (referred to herein as "homes 14") and a plain old telephone service (POTS) network 16 or an Internet protocol network 18.);

a second logical communications node (Figure 2, line cards 74...84) operated by a second service provider as an independent packet services node of the second service provider (Figure 2; col. 4, lines 56-67; line cards 74 and 76, both associated with a different CLEC, such as Qwest; other line cards 78...84 are associated with ILEC Verizon; col. 5, lines 3-6; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card.) that can process multiple, concurrent customers of the second service provider (Figure 1, shows multiple DSLAM 44 coupled to a splitter which gives parallel/concurrent access to multiple homes; col. 2, lines 61-66; Telecommunication system 10 includes a central office 12 providing telecommunications services between a

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plurality of homes or businesses (or other locations) 14 (referred to herein as "homes 14") and a plain old telephone service (POTS) network 16 or an Internet protocol network 18.); and

common resources (Figure 2, line card 87; col. 5, lines 1-3, each line cards 87 comprises one or more DSL modems, also referred to as ports), respective portions of said common resources being dedicated to said first and second logical communications nodes (Figure 2, line cards 70 and 72, line cards 70 and 72 associated with Southwestern Bell; line cards 74 and 76, both with Qwest; line cards 78...84 associated to Verizon; col. 5, lines 1-14; shows that each line card comprises one or more DSL modems/ports), each of said respective portions being dynamically configured in respective customized manners by said first and second service providers (col. 5, lines 1-14; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card. In this regard, control refers to being able to turn on and off service as well as to tune the particular type of service that a particular customer is granted, such as silver, platinum or gold service levels, depending on the amount of bandwidth provided to the customer. Division of control is illustrated on a line card-by-line card basis; however, division of control could also occur on a port-by-port basis, giving control of various ports on a line card to different service providers.).

Even though, Quiles shows multiple, concurrent customers being serviced/processed by either first service provider or second service provider (as shown above), Quiles does not specifically show service requests associated with customers.

Harrisville-Wolff shows multiple, concurrent service requests associated with customers (col. 6, lines 15-35; the client system 104, 116 via the virtual service mechanism 108, 120 forwards service requests to the service manager 160.). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Quiles to include the features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

As to claim 2, modified Quiles shows that the portion of said common resources (Quiles: Figure 2, line card 87; col. 5, lines 1-3, each line cards 87 comprises one or more DSL modems, also referred to as ports) allocated to said first logical communications node is dynamically and customarily reconfigured by said first service provider (Quiles: col. 5, lines 1-14; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card. In this regard, control refers to being able to turn on and off service as well as to tune the particular type of service that a particular customer is granted, such as silver, platinum or gold service levels, depending on the amount of bandwidth provided to the customer. Division of control is illustrated on a line card-by-line card basis; however, division of control could also occur on a port-by-port basis, giving control of various ports on a line card to different service providers; col. 5, lines 43-51).

As to claim 3, modified Quiles shows said common resources include switch fabric (Quiles: col. 4, lines 46-47; The network interface card also contains the IP/ATM switch fabric).

As to claim 7, modified Quiles shows all of the elements except said common resources include software resources.

Harrisville-Wolff shows software resources (col. 7, lines 45-56; the stored service proxies in the memory 184 are executable code that define the interfaces, initial attributes, and operations of the service and which when transferred by the service deployment mechanism 176 to a client system 104, 116 allow the service to be provided through interactions between the service providers 136, 148 and the client systems 104, 116). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of modified Quiles to include the additional features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

As to claim 9, modified Quiles shows all of the elements except a firewall providing private and secure separation between said first logical communications node and said second logical communications node.

Harrisville-Wolff shows a firewall providing private and secure separation between said first logical communications node and said second logical

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communications node (Figure 1, Firewall 128). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of modified Quiles to include the additional features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

As to claim 10, modified Quiles shows said second logical communications node is a master communications node (Quiles: Figure 2, line cards associated with Incumbent Local Exchange Carrier (ILEC) Verizon; Figure 3C) and the second service provider is an operator of the physical packet services node, the master communications node being configured to manage and allocate said common resources to said first logical communications node (Quiles: Figure 3C; col. 6, lines 50-67; The system of FIG. 3C shows a plurality of CLEC clients 130, 132 associated with an ILEC DSL manager 124 are provided. CLEC clients 130 and 132 are hosted by an ILEC DSL manager server 124 on an ILEC network operation center 122 and provide a user interface to the CLECs for configuration of line cards 87 or ports 88 that are associated with the respective CLEC. Because CLEC clients 130, 132 communicate directly with ILEC DSL manager server 124 permissions are set that grant access of CLEC clients 130, 132 to only particular line cards 87 or 88 over which the CLEC has control. The configuration data received by ILEC DSL manager server 124 is communicated to element manager server 128 and implemented over line 65.).

As to claim 11, modified Quiles shows that the physical packet services node is an internet protocol (IP)-based router or switch (Quiles: Figure 1 and 2, DSLAM 44; Examiner notes that a DSLAM is a packet multiplexer that serves to multiplex data packets from multiple customers in order to transmit them over one or more high-speed circuits; also in an integrated voice/data application, the voice packets are forwarded to a PSTN or an IP network;).

As to claim 13, Quiles shows a system (Figures 1-2) for sharing and optimizing resources between service providers within a telecommunications network (col. 4, lines 27-37), comprising:

a first and second service providers (Figure 2, shows various service providers, SB1-2, Q1-2, V1-4; col. 4, lines 56-67; Southwestern Bell, Qwest, Verizon), each capable of providing telecommunications services to respective end users (col. 2, lines 61-67; providing telecommunications services between a plurality of homes and a POTS network or an IP network); and

a unified and integrated switch (Figure 1-2, DSLAM 44) within the telecommunications network (Figure 1, telecommunications system 10) and having a respective physical interface to each of said first service provider and said second service provider (Figure 2, respective line cards (70...84) have their own respective lines (50...64), both are under control of respective service provider (SB, Q, V), said unified and integrated switch including a first logical communications node operated by said first service provider (Figure 2, line cards 70 and 72 controlled by Southwestern Bell; col. 4, lines 56-67) as an independent packet services node of said first service

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provider (Figure 2; col. 4, lines 56-67; line cards 70 and 72, both associated with a CLEC, such as Southwestern Bell; col. 5, lines 3-6; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card.) that can process multiple, concurrent end users of said first service provider (Figure 1, shows multiple DSLAM 44 coupled to a splitter which gives parallel/concurrent access to multiple homes; col. 2, lines 61-66; Telecommunication system 10 includes a central office 12 providing telecommunications services between a plurality of homes or businesses (or other locations) 14 (referred to herein as "homes 14") and a plain old telephone service (POTS) network 16 or an Internet protocol network 18.); and a second logical communications node (Figure 2, line cards 74...84) operated by said second service provider as an independent packet services node of said second service provider (Figure 2; col. 4, lines 56-67; line cards 74 and 76, both associated with a different CLEC, such as Qwest, other line cards 78...84 associated with ILEC Verizon; col. 5, lines 3-6; Each of line cards 87 is designated as associated with a particular service provider because that service provider maintains control over ports on the line card.) that can process multiple, concurrent said end users of said second service provider Figure 1, shows multiple DSLAM 44 coupled to a splitter which gives parallel/concurrent access to multiple homes; col. 2, lines 61-66; Telecommunication system 10 includes a central office 12 providing telecommunications services between a plurality of homes or businesses (or other locations) 14 (referred to herein as "homes 14") and a plain old telephone service (POTS) network 16 or an Internet protocol network 18.), said first

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logical communications node having a first portion of common resources (Figure 2, line card 87; col. 5, lines 1-3, each line cards 87 (70...84) comprises one or more DSL modems, also referred to as ports) within said unified and integrated switch dedicated thereto, the first portion of the common resources being configured by said first service provider (Figure 2, modems/ports and lines associated to SB; col. 2, lines 1-10; the method includes granting control of a first subset of ports to a first service provider), said second logical communications node having a second portion of the common resources dedicated thereto that is configured by said second service provider (Figure 2, modems/ports and lines associated to Q; col. 2, lines 1-10; the method includes granting control of a second subset of ports to a second service provider).

Even though, Quiles shows multiple, concurrent customers being serviced/processed by either first service provider or second service provider (as shown above), Quiles does not specifically show service requests associated with customers.

Harrisville-Wolff shows multiple, concurrent service requests associated with customers (col. 6, lines 15-35; the client system 104, 116 via the virtual service mechanism 108, 120 forwards service requests to the service manager 160.). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Quiles to include the features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

As to claims 14 and 16, these claims are rejected using the same reasoning set forth in the rejections of claims 2 and 10, respectively.

As to claim 17, modified Quiles shows that the master communications node is connected to additional master communications nodes on respective unified and integrated switches on the telecommunications network (Figure 2, shows line cards 78 to 84 connected with each other, and each line card is associated with ILEC Verizon; Figure 3C; col. 6, lines 50-67).

As to claim 25, modified Quiles shows that at least one of the first and second service providers modifies hardware within said common resources to customize said respective first or second logical communications node (Quiles: col. 5, lines 43-51; DSL managers 96, 98 and 100 provide a user interface to an appropriate service providers such that the service provider may appropriately set a particular port 88 on a line card 87 to desired settings.).

As to claim 26, modified Quiles shows that each of the first and second service providers customizes said respective first and second logical communications node (refer to claim 1 rejection) to operate as an IP router (refer to claim 11 rejection).

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff) in further view of Lau et al. (US 7079485 B1; hereinafter Lau)

As to claim 4, modified Quiles shows all of the elements except a line board.

Lau shows a line board (Figure 1B, electrical backplane 103; col. 3, lines 50-53). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified Quiles to include the specific features of Lau in order to provide the ability to finely tune the amount of bandwidth allocated to each communication flow (col. 3, lines 41-43).

As to claim 5, further modified Quiles shows that the line board includes optical and electrical signal processing and handling components, and the handling components including at least one of transceivers (Lau: col. 9, lines 52-56, high-speed electrical or optical transceivers).

As to claim 6, modified Quiles shows all of the elements except traffic processor boards.

Lau shows a traffic processor board (col. 8, lines 49-52; shows that ingressing traffic maybe directed to one of the switch cards 74 and thereafter switched through the switch card 74 for egress from another one of the line cards 72. Lau further shows, at col. 16, lines 20-22, that ZINC and ZEST chips are provided on respective line and switch cards that are also plugged into backplane 103a.). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified Quiles to include the specific features of Lau in order to provide the ability to finely tune the amount of bandwidth allocated to each communication flow (col. 3, lines 41-43).

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff) in further view of Hughes et al. (US 6434612 B1 hereinafter Hughes)

As to claim 18, modified Quiles shows all of the elements except said unified and integrated switch further includes a logical interface between the first logical communications node and the second logical communications node.

Hughes shows a logical interface between the first logical communications node and the second logical communications node (Figure 7, col. 7, lines 3-24; each controller is presented a view of a switch having a particular set of logical interfaces. The logical interfaces are either physical interfaces or virtual interfaces and the sets of logical interfaces presented to different controllers will differ.). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified Quiles to include the features of Hughes as shown above in order to allow multiple independent controllers, each supporting different control systems, to simultaneously control a network switch by partitioning switch resources (col. 3, lines 27-30).

10. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff) in further view of Teixeira (US 2003/0142811 A1; hereinafter Teixeira).

As to claim 27, modified Quiles shows that said common resources are partitioned between said first and second logical communications nodes (Quiles: Figure 2, CLECs Southwestern Bell (SB) and Qwest (Q)) based leasing the local loop lines to the competitors (Quiles: col. 1, lines 32-46) and a wholesale provider (Figure 2, ILEC Verizon) managing said physical packet services node that reflect business needs of the first and second service providers (Figures 1-4; col. 1, lines 47-63; In response to the opening of the local loop, numerous service providers have begun providing DSL service to homes or businesses connected to the local loop, rather than a sole service provider providing such service. To do so, the ILEC provides a telephone wire connection associated with a given user at the central office to the CLEC; col. 4, lines 1-26), availability of said common resources (col. 4, lines 1-36) and price for said respective logical communications nodes (col. 6, lines 43-49; individual modems 88 and individual line cards 87 associated with a single DSLAM 44 may be configured by various service providers by allowing access to an element manager framework server through a plurality of DSL managers. Such configuring of the line cards 87 or ports 88 allows various service providers to share a common DSLAM 44, thus, reducing the cost of DSL service.). However, modified Quiles does not explicitly show leasing the local lines to the competitors have respective contracts.

Teixeira shows respective contracts associated with leasing local lines to competitors (Par. 0030: When a pair a CLECs reach agreement on the deployment of services, the CLECs may decide to interconnect ports of their respective equipment 1930. The interconnection may allow one CLEC to expand its DSL service offering by

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leasing, for example, capacity from another CLEC. The leased capacity may represent an entirely new service for the lessee or may represent an expansion of existing services. The interconnection may also be performed to reflect the purchase or exchange of services by one CLEC from another.). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of modified Quiles to include the features of Teixeira as shown above, in order to prevent truck rolls to the central office and allows ILECs to accomplish more service provisioning with the same or fewer resources (Par. 0007).

As to claim 28, further modified Quiles shows each of the respective contracts reflects a business interaction process between the respective first or second service provider and the wholesale provider (Par. 0030: When a pair a CLECs reach agreement on the deployment of services, the CLECs may decide to interconnect ports of their respective equipment 1930. The interconnection may allow one CLEC to expand its DSL service offering by leasing, for example, capacity from another CLEC. The leased capacity may represent an entirely new service for the lessee or may represent an expansion of existing services. The interconnection may also be performed to reflect the purchase or exchange of services by one CLEC from another; Examiner notes that since ILECs permits CLECs to co-locate data services, its also means the ILEC is indirectly related to the CLEC to CLEC provisioning as shown in Par. 0030). However, further modified Quiles does not show a service requisition phase, a service processing phase, a service fulfillment phase and a service conclusion phase.

Harrisville-Wolff shows a service requisition phase (Figure 3; col. 3, lines 17-22; The service manager includes a service deployment tool for registering service providers by storing service proxies received from the service providers. The service proxies are executable code (such as Java objects) and include an interface for defining the methods implemented by the underlying service that can be requested by client systems; col. 10, lines 17-30), a service processing phase (Figure 3; col. 3, lines 25-28; The service manager includes a service selection tool adapted for processing the service requests to match stored service proxies to select appropriate available services for the client system.), a service fulfillment phase (Figure 3, steps 320-332) and a service conclusion phase (Figure 3, step 336 to end). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system of further modified Quiles to include the additional features of Harrisville-Wolff as shown above in order to address the prior problems in delivering services that require operator time and expertise and client system resources by providing a service provider system in which service providers are linked to client systems via a communication network to provide automated services at the client systems (col. 4, lines 10-16).

Response to Arguments

11. Applicant's arguments, see Applicant's Remarks pages 7-10, filed April 8, 2008, with respect to the rejection(s) of claim(s) 1-3, 6-8, 10, 11 and 13-24 under 35 U.S.C. §103(a) as being unpatentable over Schneider, et al. (U.S. Patent Application Publication Number 2006/0114889A1) in view of Hughes, et al. (U.S. Patent No.

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6,434,612B1); claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Schneider and Hughes in view of Lau et al., (U.S. Patent No. 7,079,485B1); claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Schneider and Hughes in view of Matthews have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in as shown in the following:

- Claims 1-3, 7, 9-11, 13, 14, 16-17, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff).
- Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff) in further view of Lau et al. (US 7079485 B1; hereinafter Lau)
- Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff) in further view of Hughes et al. (US 6434612 B1 hereinafter Hughes)
- Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiles et al. (US 7065072 B1; hereinafter Quiles) in view of Harrisville-Wolff et al. (US 6,950,847 B2; hereinafter Harrisville-Wolff) in further view of Teixeira (US 2003/0142811 A1; hereinafter Teixeira).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to REDENTOR M. PASIA whose telephone number is (571)272-9745. The examiner can normally be reached on M-F 7:30am to 4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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